



LETHAL AND LEGAL? THE ETHICS OF DRONE STRIKES

Dr. Shima D. Keene



The United States Army War College

The United States Army War College educates and develops leaders for service at the strategic level while advancing knowledge in the global application of Landpower.

The purpose of the United States Army War College is to produce graduates who are skilled critical thinkers and complex problem solvers. Concurrently, it is our duty to the U.S. Army to also act as a “think factory” for commanders and civilian leaders at the strategic level worldwide and routinely engage in discourse and debate concerning the role of ground forces in achieving national security objectives.



The Strategic Studies Institute publishes national security and strategic research and analysis to influence policy debate and bridge the gap between military and academia.



The Center for Strategic Leadership contributes to the education of world class senior leaders, develops expert knowledge, and provides solutions to strategic Army issues affecting the national security community.



The Peacekeeping and Stability Operations Institute provides subject matter expertise, technical review, and writing expertise to agencies that develop stability operations concepts and doctrines.



The School of Strategic Landpower develops strategic leaders by providing a strong foundation of wisdom grounded in mastery of the profession of arms, and by serving as a crucible for educating future leaders in the analysis, evaluation, and refinement of professional expertise in war, strategy, operations, national security, resource management, and responsible command.



The U.S. Army Heritage and Education Center acquires, conserves, and exhibits historical materials for use to support the U.S. Army, educate an international audience, and honor soldiers—past and present.

STRATEGIC STUDIES INSTITUTE



The Strategic Studies Institute (SSI) is part of the U.S. Army War College and is the strategic-level study agent for issues related to national security and military strategy with emphasis on geostrategic analysis.

The mission of SSI is to use independent analysis to conduct strategic studies that develop policy recommendations on:

- Strategy, planning, and policy for joint and combined employment of military forces;
- Regional strategic appraisals;
- The nature of land warfare;
- Matters affecting the Army's future;
- The concepts, philosophy, and theory of strategy; and,
- Other issues of importance to the leadership of the Army.

Studies produced by civilian and military analysts concern topics having strategic implications for the Army, the Department of Defense, and the larger national security community.

In addition to its studies, SSI publishes special reports on topics of special or immediate interest. These include edited proceedings of conferences and topically oriented roundtables, expanded trip reports, and quick-reaction responses to senior Army leaders.

The Institute provides a valuable analytical capability within the Army to address strategic and other issues in support of Army participation in national security policy formulation.

**Strategic Studies Institute
and
U.S. Army War College Press**

**LETHAL AND LEGAL?
THE ETHICS OF DRONE STRIKES**

Dr. Shima D. Keene

December 2015

The views expressed in this report are those of the author and do not necessarily reflect the official policy or position of the Department of the Army, the Department of Defense, or the U.S. Government. Authors of Strategic Studies Institute (SSI) and U.S. Army War College (USAWC) Press publications enjoy full academic freedom, provided they do not disclose classified information, jeopardize operations security, or misrepresent official U.S. policy. Such academic freedom empowers them to offer new and sometimes controversial perspectives in the interest of furthering debate on key issues. This report is cleared for public release; distribution is unlimited.

This publication is subject to Title 17, United States Code, Sections 101 and 105. It is in the public domain and may not be copyrighted.

Comments pertaining to this report are invited and should be forwarded to: Director, Strategic Studies Institute and U.S. Army War College Press, U.S. Army War College, 47 Ashburn Drive, Carlisle, PA 17013-5010.

This manuscript was funded by the U.S. Army War College External Research Associates Program. Information on this program is available on our website, *www.StrategicStudiesInstitute.army.mil*, at the Opportunities tab.

All Strategic Studies Institute (SSI) and U.S. Army War College (USAWC) Press publications may be downloaded free of charge from the SSI website. Hard copies of certain reports may also be obtained free of charge while supplies last by placing an order on the SSI website. Check the website for availability. SSI publications may be quoted or reprinted in part or in full with permission and appropriate credit given to the U.S. Army Strategic Studies Institute and U.S. Army War College Press, U.S. Army War College, Carlisle, PA. Contact SSI by visiting our website at the following address: *www.StrategicStudiesInstitute.army.mil*.

The Strategic Studies Institute and U.S. Army War College Press publishes a monthly email newsletter to update the national security community on the research of our analysts, recent and forthcoming publications, and upcoming conferences sponsored by the Institute. Each newsletter also provides a strategic commentary by one of our research analysts. If you are interested in receiving this newsletter, please subscribe on the SSI website at *www.StrategicStudiesInstitute.army.mil/newsletter*.

ISBN 1-58487-713-8

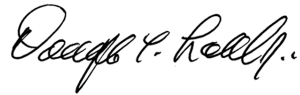
FOREWORD

The use of drones, or unmanned aerial vehicles, has increased exponentially in the last 10 years, and this trend is likely to continue for the foreseeable future. But with this increased use has come increased controversy, in particular closer scrutiny of the legal and ethical dimensions of the use of armed drones.

In this monograph, British academic and practitioner Dr. Shima Keene provides a comprehensive assessment of the lethal use of drone technologies, measured in terms of their legality, morality, and overall effectiveness in the fight against terrorism and counterinsurgency operations. Dr. Keene is a subject matter expert in the field of asymmetric warfare and counterterrorism, and a former Director of the Security Technology Short Course at the Defence Academy of the United Kingdom, where she conducted research into both technical and ethical aspects of the deployment of UAV technologies. In her monograph, she explores the legal and ethical bases for lethal use of drones, both from a U.S. and an international perspective. Dr. Keene also highlights knowledge gaps that must be filled in order to be able to make an accurate assessment of the success or failure of operations where drones have been deployed, and argues that greater transparency is needed to obtain broad public support for their use.

The Strategic Studies Institute considers that this monograph provides a useful assessment of the key issues relating to the legality, morality, and effectiveness of drone use, and is a valuable addition to the

debate on how to plan and shape future U.S. operations involving unmanned and autonomous technologies.

A handwritten signature in black ink, reading "Douglas C. Lovelace, Jr." in a cursive script.

DOUGLAS C. LOVELACE, JR.
Director
Strategic Studies Institute and
U.S. Army War College Press

ABOUT THE AUTHOR

SHIMA D. KEENE is a British academic and practitioner specializing in matters relating to national and international security. She is a Director of the Conflict Studies Research Centre, Oxford, as well as Director of the Security Economics Programme at the Institute for Statecraft, London, United Kingdom (UK). Dr. Shima is also a Deployable Civilian Expert (DCE)¹ and a member of the UK Government's Civilian Stabilisation Group (CSG)² specializing in Intelligence and Security Sector Reform which sits under the Security and Justice Function of the CSG. She is a former Senior Research Fellow and Advisor at the Advanced Research and Assessment Group, Defence Academy of the UK, and Special Advisor to the UK Ministry of Defence (MoD), where she had responsibility for assessment and recommendations for the development of financial counterinsurgency strategies in Afghanistan. Dr. Keene advises and works closely with several British and international organizations on a number of topics relating to national and international security including the MoD, various UK Government departments and law enforcement agencies, the Organization for Security and Co-operation in Europe, the Council of Europe, the Global Futures Forum, the North Atlantic Treaty Organization (NATO), U.S. Government departments and law enforcement agencies, and various global private sector organizations. Dr. Shima has 25 years of practitioner experience in a number of industries to include finance, defense, security, and telecommunications in both the public and private sectors, to include with government departments, law enforcement, telecommunications, and finance. She is also a former British Army reservist soldier with 7

years military service, most of which was spent with 4th Battalion, the Parachute Regiment. Dr. Keene has published numerous internal and external MoD and NATO reports as well as award winning academic journal articles. She is the author of "Threat Finance: Disconnecting the Lifeline of Organized Crime and Terrorism." Dr. Shima graduated from the University of Buckingham with honors in business studies and holds an M.Phil. in defence and security studies from the Defence College of Management and Technology, Defence Academy of the United Kingdom, and a Ph.D. in international criminal law from the Institute of Advanced Legal Studies, University of London.

ENDNOTES - BIOGRAPHICAL SKETCH

1. In the UK system, DCEs are nongovernment civilians who are available for deployment, often at short notice, for assignments in countries affected by or at risk of violent conflict. They are part of the Civilian Stabilisation Group (CSG) which is a pool of skilled individuals who are deployed to fragile and conflict-affected countries to assist the UK Government in addressing instability.

2. The Stabilisation Unit (SU) is a civil-military operational unit based in Whitehall, London, which supports UK Government efforts to tackle instability overseas. It is an internationally recognized center of excellence on stabilization, conflict, and security and home of the UK Government's lessons learned on stabilization work. Formed in 2007 as an interdepartmental agency, jointly owned by the Foreign and Commonwealth Office (FCO), Ministry of Defence (MoD), and the Department for International Development, the SU became an independent unit in 2015, funded through the Conflict Stability and Security Fund and governed through the National Security Council.

SUMMARY

With greatly increased lethal use of unmanned aerial vehicles (UAVs) comes greater scrutiny and controversy. This monograph lays out the ethical and legal landscape in which drone killings take place and makes key recommendations not only for ensuring legality and a sound moral basis for operations, but also for ensuring those operations are effective.

While supporters claim that drone warfare is not only legal but ethical and wise, others have suggested that drones are prohibited weapons under International Humanitarian Law (IHL) because they cause, or have the effect of causing indiscriminate killings of civilians, such as those in the vicinity of a targeted person. The main legal justification made by the Barack Obama administration for the use of armed drones is self-defense. However, there is ambiguity as to whether this argument can justify a number of recent attacks by the United States. In order to determine the legality of armed drone strikes, other factors such as sovereignty, proportionality, the legitimacy of individual targets, and the methods used for the selection of targets must also be considered.

The ethical landscape is also ambiguous. One justification is the reduced amount of collateral damage possible with drones relative to other forms of strike. Real-time eyes on target allow last-minute decisions and monitoring for unintended victims, and precise tracking of the target through multiple systems allows further refinements of proportionality. But this is of little benefit if the definition of “targets” is itself flawed and encompasses noncombatants and unconnected civilians.

This monograph also provides a number of specific recommendations intended to ensure that the benefits of drone warfare are weighed against medium- and long-term second order effects, so as to measure whether targeted killings are serving their intended purpose of countering terrorism rather than encouraging and fueling it.

LETHAL AND LEGAL? THE ETHICS OF DRONE STRIKES

Dr. Shima D. Keene

INTRODUCTION

No aspect of modern warfare is as controversial as the use of armed drones. Everything about drone technology is contested: its novelty, legality, morality, utility, and future development. Even the choice of what to call such systems is value-laden.¹

Professor Sir David Omand GCB
Former United Kingdom Security
and Intelligence Coordinator

In the years since the attacks of September 11, 2001 (9/11), the United States has developed the use of unmanned aircraft (UA) — drones — to locate, target, and eliminate individuals overseas considered to pose a threat to the United States. Although the program was initially kept secret, in recent years the U.S. Government has acknowledged that drones are used to target members of al-Qaeda and associated forces within theaters of conflict, as well as outside it. In the last 10 years, this use of drones has increased exponentially.²

The overall use of armed drones by the United States is reported to have grown by 1,200 percent between 2005 and 2013.³ More drone strikes were authorized by the Barack Obama administration in 2009 than by that of George W. Bush during his entire time in office,⁴ and by early-2012, the Pentagon was reported to have 7,500 drones under its control, representing approximately one-third of all U.S. military aircraft.⁵ Furthermore, this trend is expected to continue, with

many viewing unmanned vehicles as the future of warfare.⁶

Key rationales for the use of armed drones are that they are legal, effective, and ethical. According to White House spokesman James Carney speaking in February 2013, the current U.S. administration views strikes by drones to be “legal, ethical, and wise.” However, the simple fact that examination of the ethics of drone strikes has been included in the 2014 Army Priorities for Strategic Analysis testifies to the moral ambiguity that persists surrounding their use as a tool of policy.

WHAT IS A DRONE?

The term “drone” refers to any UA controlled remotely by an operator on the ground. Historically, the term “unmanned aerial vehicles” (UAVs) was used, although this is now seen by many as misleading since there is a pilot, albeit on the ground as opposed to in the aircraft itself.⁷ Consequently, the term “remotely piloted aircraft” (RPA) has become the preferred term for some as it provides a more accurate description as to what a drone is.

The term “drone” dates from the 1930s. It is believed to originate with the “Queen Bee” radio controlled aircraft,⁸ the first returnable and reusable UAV developed in the United Kingdom (UK) and designed for use in air and naval gunnery practice.⁹ Today, the desire to avoid use of the term “drone” by some governments outside of the United States reflects that the word has come to imply morally dubious “killing machines” responsible for the murder of innocent civilians. This is a direct result of media reporting on the U.S. weaponized drones program.

Media representation of armed drones generally has been negative, which is partly the reason why the British Ministry of Defence (MOD) has rejected the term in favor of RPAs. The search for an alternative term for “drone” is also representative of a desire to remind people of other uses for drones which are often forgotten. Even within a military context, drones are used in a nonkinetic as well as a kinetic capacity, including for surveillance and intelligence gathering. In addition, their use is not restricted to counterterrorism and counterinsurgency (COIN) operations, but extends to humanitarian peacekeeping and peace enforcement operations as well.

Drone technologies offer many benefits, including significant economic value and social benefits, and are increasingly being exploited by civil authorities responsible for safety, security, and policing.¹⁰ Outside defense and security, the technology is also utilized by a number of industries for civilian applications including agriculture, media,¹¹ catering, private security, law enforcement, conservation, and environmental monitoring. Several of these domains – most notably the media – are also subject to ongoing debates on ethics and legality, focusing on privacy and the need for regulation. Recent examples include use by the Police Service of Northern Ireland during the G8 summit in 2013,¹² by German national railway company Deutsche Bahn to track graffiti artists on its property,¹³ and by the Japanese restaurant chain Yo!Sushi, which recently introduced the “ITray,”¹⁴ a custom built flying platter, in its Soho branch in London, UK.¹⁵ Drones have also been used in South Africa for tracking poachers, resulting in a reduction in rhinoceros deaths.¹⁶ Further potential applications under consideration include the airborne distribution of pesticides, fire investiga-

tions in unsafe buildings, search and rescue missions in treacherous conditions, police searches for missing or wanted persons, traffic management, public order situations, and evidence gathering.¹⁷

The potential benefits of drone technologies for military and nonmilitary applications are considerable. The first benefit is cost. As the aircraft does not have to be built around a human, it can be of any size. The lack of a pilot and passengers also negates the need for support systems such as pressurized cabins, further reducing cost. The second benefit is the improved duration of flying times, which can be increased from hours to weeks. The third benefit is the ability to risk dangerous conditions such as extreme poor weather, which would be outside minima if there were a pilot on board. Unsurprisingly, therefore, the use of drone technology is expected to continue to increase across all applications.

For the advocates of drone warfare, the evolution of drones represents a natural advancement in technology which is regarded as both logical and welcome. Many also accept drones as an inevitability given that we live in an era of rapidly evolving technological advancement, coupled with a climate of economic austerity where there is a constant requirement to deliver more for less cost. This cost refers not only to financial cost, but also cost in lives. The latter criterion is also attractive in policy terms, because it reduces or eliminates the risk of friendly casualties. In casualty-averse Western societies, this can be a key determinant of the sustainability of military engagement.

At the same time, for others, the use of drones signals a dangerous decline in morality and accountability. The use of drones for targeted killings has been described as a step change in warfare, not only

in terms of technological capabilities, but in terms of the ethical and legal frameworks that have governed the use of force for decades. Critics argue that the normalization of the use of drones represents a slippery slope that intrudes upon human rights, and increases the temptation to use force while diminishing the accountability of those engaged in such actions.

There are clearly a number of considerations regarding the armed use of drones. The purpose of this monograph is to explore the answers behind three key questions: First, is it legal? Second, is it ethical? Third, is it effective? Each will be examined in turn.

Is It Legal?

The main legal justification made by the Obama administration for the use of armed drones is self-defense. It is argued that following the 9/11 attacks in 2001, the United States is defending itself against enemies who are constantly contemplating and planning deadly attacks against it. Furthermore, according to State Department legal advisor Harold Hongju Koh in a public statement made in March 2010, the U.S. practice of targeted killing complies fully with all applicable law.¹⁸ The U.S. position is that as part of the ongoing war on terror, the circumstances and the level of implied threat from terrorism is such that terrorists should be denied protection from International Humanitarian Law (IHL).

However, there is ongoing debate as to whether these actions are, in fact, legal. Warnings from critics such as Christof Heyns, the United Nations (UN) special rapporteur on extrajudicial killings, that the use of armed drones could constitute war crimes,¹⁹ are clearly of concern, requiring further investigation.²⁰

Determining the legality of the use of armed drones to international standards is far from straightforward. First and foremost, there is no central legislative body or controlling authority for international law.²¹ International treaties and state practices generally are considered to be the most authoritative sources of international law. But the breadth of factors that can be considered as sources of international law result in a profusion of authority, which can be problematic in establishing precedence. Furthermore, there is no obviously applicable international court to determine the legality or otherwise of drone strikes.

A further challenge is the ambiguous treatment of irregular warfare in international law. Under IHL, wars are recognized as armed conflicts fought between two or more states or high contracting parties.²² Where this is not the case, existing international law only recognizes the existence of armed conflict in the context of civil or internal wars, and not between states and substate entities, namely irregular forces. In other words, international law is not fully equipped to tackle the 21st century security environment, characterized by asymmetric warfare, where nonstate actors typically take center stage.

This in many ways is central to the debate on the war on terror, and the role of armed drones within it. This war is not conventional warfare in that the enemy is not a state, but also because combatting the threat has both military and law enforcement elements. This is particularly true with the use of armed drones, which are used extensively by the Central Intelligence Agency (CIA) for counterterrorism purposes. Regardless of the extent to which the CIA may be considered a law enforcement agency, the tactics adopted have a closer resemblance to those used by law enforcement

to tackle criminal gangs than to those of the military in conventional warfare.

However, even the distinction between law enforcement and military activities is often unclear as a result of the close cooperation between the CIA and the military. This is particularly true in counterterrorism operations, where a shift from “boots on the ground” to that of more discreet and deniable attacks has been observed.²³ According to Admiral William McRaven, former commander of Joint Special Operations Command and head of U.S. Special Operations Command:

American military and intelligence operatives are virtually indistinguishable from each other as they carry out classified operations in the Middle East and Central Asia.²⁴

This results in an ambiguity between the applicability of the law of armed conflict (LoAC) and the criminal justice approach. While the legality of drone attacks conducted by the military can be assessed under LoAC, when the attacks are carried out by law enforcement the assessment of legality becomes more complex. As a result, a number of existing legal sources and guidance must be used in attempting to determine the legality of armed drone attacks. A good starting point is to make an assessment on the legality of the military use of armed drones, which is governed by the LoAC. As such, a brief discussion of the legal concepts of *jus ad bellum* and *jus in bello*, which underpin the law of armed conflict, is essential.

Jus ad bellum versus jus in bello.

Under international law, two aspects of warfare are considered. The first relates to **why** you are fighting, referring to whether the reasons for fighting can be justified. The second consideration is **how** you fight, which examines whether warfighting is conducted in a legitimate manner. In terms of the first, the reasons as to “why” you are fighting falls under the doctrine of “just war” theory, governed by *jus (or ius) ad bellum*, which is the title given to the branch of law that defines the legitimate reasons a state may engage in war. This is also referred to as the law of international armed conflict. It focuses on certain criteria, including; authority, just cause, right, and intention, which must be considered prior to engaging in war to determine whether it is a just war.

Jus in bello, on the other hand, is the set of laws that govern the way in which warfare is conducted and come into effect once a war has begun.²⁵ Its purpose is to regulate how wars are fought, without prejudice to the reasons as to how or why they had begun, and whether or not the cause upheld by either party is just. *Jus in bello* is also referred to as international humanitarian law, and the two terms are used interchangeably by the International Committee of the Red Cross (ICRC) as well as scholars who wish to emphasize their goal of mitigating the excesses of war and protecting civilians and other noncombatants. As its purpose is to limit the suffering in war by protecting and assisting victims as much as possible, IHL regulates only those aspects of conflict which are of humanitarian concern.

The theoretical separation between *jus ad bellum* and *jus in bello* is also important, and should be noted.

In theory, it is possible to be engaged in an “unjust” war while adhering to the laws of armed conflict, or to be breaking the laws of armed conflict while fighting a just war. In addition, it is also often difficult to determine which state is guilty of violating the UN Charter that underpins *jus ad bellum*.²⁶ The application of humanitarian law does not involve the denunciation of guilty parties as that would be bound to arouse controversy and paralyze implementation of the law, since each adversary would claim to be a victim of aggression. This is why the two branches of law are, and should remain, completely independent of one another with the purpose of guaranteeing the application of *jus in bello*, irrespective of whether the war meets the *jus ad bellum* criteria.²⁷ At the same time, this necessity for separation also results in the inevitable tension between the two bodies of law. Each has its own historical origins and has developed in response to different values and objectives. Also, the fact that most of the principles of *jus in bello* predate the prohibition of the indiscriminate use of force²⁸ has led some to conclude that “modern” *jus ad bellum* has rendered IHL superfluous.

The distinction and the need to satisfy criteria set out by *jus in bello* and *jus ad bellum* has also been challenged by the view that, in some cases, a situation of self-defense may be so extreme and the threat to the survival of the state so great, that violations of *jus in bello* may be justified.²⁹ However, the humanitarian argument is that victims on both sides of a conflict are equally worthy of protection. As such, the need for separation of the two bodies of law based on humanitarian grounds is equally convincing.³⁰ While there is no clear consensus as to which should take priority, there are additional considerations that should be examined in determining the legality of armed drones.

The first factor to consider is the legitimacy of targets and targeting methods, referring to the process used to identify, prioritize and select or eliminate targets which are considered to be of operational and strategic value. Targets can be mobile targets such as individuals or groups of individuals, or stationary targets such as lines of communications or hardened facilities. Although damage to stationary targets can also have considerable negative impact on local populations, which must be taken into consideration when assessing proportionality, this monograph will focus on the more emotive question of directly targeting humans.

Determining the Legitimacy of a Target.

For an armed attack to be deemed legitimate, the individual targeted must also be a legitimate target in the eyes of the law. Legal guidance is available through UN and other rulings as to what constitutes a valid target. However, the reality is not always clear cut. The media reported that the Joint Integrated Prioritized Target List produced by the U.S. Department of Defense (DoD) in 2009³¹ contained just over 400 names of individuals described as “known terrorists,” who are deemed to be legitimate targets.³² However, many argue that the definition of “terrorist” used is far too broad to be legally defensible for targeting decisions.³³

The inclusion of Taliban financiers on the so-called “kill list” is a case in point. Although terrorist financiers may be classified as terrorists, there is debate as to whether they can be deemed a legitimate target for a kill list under IHL. According to ICRC guidance, IHL stipulates that the decisive criterion as to whether an individual is a member of an organized armed group, terrorist or otherwise, is to prove a continuous combat

function. Furthermore, any individual falling outside this category would be classified as a civilian. In other words, unless a Taliban financier can be proved to be a combatant on a continual basis, it would be unlawful to target him under IHL.

The next factor that must be taken into consideration is distinction, referring to the ability to differentiate between an individual who is a terrorist and who is not. This can be particularly challenging when attempting to isolate the target from his or her family. Under IHL, if family members fall victim, it is not considered to be a legal kill, unless it can be proved that the family members were also part of a targeted organization and causing real harm. Unfortunately, reporting on U.S. drone strikes to date gives the impression that this criterion has been ignored. If this is true, greater attention to legality is necessary. If it is false, greater attention to media and perception management is needed.

A further point of legal debate relates to the circumstances in which a terrorist is killed, in particular with reference to “rescuer attacks” or “follow-up strikes.” One example is the killing of senior al-Qaeda leader Abu Yahya Al-Libi on June 4, 2012. Following an initial drone strike which killed five people and injured four others, a group of 12 people, including local residents, came to the assistance of the victims. Al-Libi was reported to have been overseeing the rescue efforts and was killed in the second strike, along with between 9 and 15 other people, including six local tribesmen. In other words, six civilians were killed working in a humanitarian capacity alongside a group of al-Qaeda operatives under a senior al-Qaeda official.

The follow-up strike has been described as a potential war crime both because it constituted an attack on civilian rescuers, and also because al-Libi may not have been directly participating in hostilities at the time of the strike. However, the question as to whether al-Libi was directly participating in hostilities and therefore deemed as a legitimate target does not depend on what he was doing at the time he was killed.³⁴ What really matters in terms of determining the legality of the attack is whether the attack was carried out as part of an actual armed conflict (such as the non-international armed conflict [NIAC]³⁵ in Afghanistan) and his role in that conflict.³⁶ There is an additional argument that even suspected terrorists should have the right to surrender and defend themselves in court. The right to surrender and defense in court is equally applicable in relation to selecting targeted killing by drones over the option of capture. This argument put aside, to qualify as a target of a kill list, the individual must be considered to pose a direct threat to the United States for the act to be deemed legitimate.

Furthermore, a kill list is not the only way the United States targets individuals using drones. A significant proportion of the individuals killed in drone strikes are not, even by the U.S. Government's account, militant leaders and thus are unlikely to be on a kill list. As such, the method by which a target is selected becomes highly relevant. In other words, how someone is killed is considered to be as important as who is killed, as this will determine whether a killing can be deemed a targeted killing or an assassination.³⁷ The significance of the differentiation from a legal standpoint is that targeted killings are legitimate whereas assassinations are not viewed as legitimate under either domestic or international law.³⁸ Furthermore,

targeted killings must be executed using conventional military means only.³⁹ When treachery is deemed to exist, where targets have been misled, and deception is used, a targeted killing cannot be justified⁴⁰ and may be considered to be an assassination.

Sovereignty.

The geographical location where the drone attacks are taking place, and consideration of sovereignty, together with possible violation of the territorial integrity of the countries where targeted killing takes place, are also key factors in determining the legality of a drone strike. As a threshold matter, the *jus ad bellum* inquiry depends on whether the “host state” has consented to the drone strike. If there is consent, there is no infringement on sovereignty. Publicly available literature suggest that many of the states where the drone attacks are taking place, such as Iraq, have provided consent to the United States, thus making the attacks legal from the perspective of sovereignty.

However, the situation in jurisdictions such as Pakistan is less clear. On the one hand, the United States has claimed that it is acting with the consent of Pakistan.⁴¹ At the same time, Pakistan has publicly denied this.⁴² According to the United States, this is because the Pakistani government believes that the decision to give consent would be unpopular with the Pakistani people.⁴³ In other words, they are covertly supportive of U.S. action, but for political reasons feel that they must be seen to be opposing it. As such, a definitive answer to this factual question is impossible without access to confidential material. As a result of the lack of explicit consent, alternative justifications to provide a legal basis for the continued U.S. drone

strikes in Pakistan become necessary. Here, the United States has turned to Article 51 of the UN Charter, which preserves each state's "inherent right of individual or collective self-defense if an armed attack occurs."

The Law of Self-Defense.

In June 2014, the New York City Bar Committee on International Law published a report entitled "The Legality under International Law of Targeted Killings by Drones launched by the United States."⁴⁴ In determining the applicability of the law of self-defense, the Committee concluded that the right to self-defense was available against nonstate actors provided there is an actual or threatened "armed attack" by the nonstate actor, and that acts of violence by nonstate actors can rise to the level of an "armed attack" within the meaning of Article 51, if they are of sufficient scale and effect. Although not all acts of terrorism justify the use of armed force, as opposed to a law enforcement response, a single act of terrorism may constitute an "armed attack" if it is of sufficient intensity.

The committee found that the 9/11 attacks in 2001 constituted an "armed attack" by al-Qaeda on the U.S., giving rise to a right of armed self-defense against al-Qaeda pursuant to Article 51 of the UN Charter. Consequently, the invasion of Afghanistan was deemed to be a legitimate exercise of force in self-defense. However, the committee concluded that the 9/11 attacks alone no longer supply a self-defense legal basis for additional measures taken against al-Qaeda. For the continued use of force to be justified on the basis of self-defense, it must be defensible through current "armed attacks," and therefore the use of force world-

wide against organizations that are not al-Qaeda core, including any alleged “affiliates” of al-Qaeda, cannot be justified as a *jus ad bellum* matter by the attacks of 9/11 alone. However, under some circumstances, the accumulation of smaller acts of violence committed by a nonstate actor may constitute an “armed attack,” provided that the use of force in self-defense is constrained by the principles of necessity and proportionality. As such, another factor in determining the legality of a targeted killing is that the action must be deemed to be proportionate.

Proportionality.

Proportionality is a fundamental principle of *jus in bello*,⁴⁵ which is codified in the First Additional Protocol to the 1949 Geneva Conventions. The principle prohibits:

an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.⁴⁶

The killing of civilians in itself does not make an attack unlawful. However, in determining proportionality, anticipated collateral damage must be taken into consideration. This is conducted as an *ex ante* analysis, as opposed to an *ex post* measure of the actual outcome. In addition, an assessment of the expected military advantage that the attack will confer on the attacker is needed. However, attempting to determine the direct military advantage needed to justify the attack is not straightforward as there is debate with respect to whether the specific benefit of the attack should be viewed in isolation⁴⁷ or in light of the attack’s role in

the overarching military objective.⁴⁸ Finally, the anticipated collateral damage must be weighed against the military benefit to ensure that the former is not excessive compared to the latter.⁴⁹ The key challenge here is the lack of facts, either on the projected collateral damage or on the expected military benefit, let alone how to balance the two, making the analysis of the proportionality of individual drones strikes impossible.⁵⁰

Also, for a targeted killing to be legitimate, the target must represent a direct and imminent threat to the United States. However, some analysts believe that, today, al-Qaeda constitutes more of an ideological influence than a genuine direct threat.⁵¹ According to Brian Jenkins of the Rand Corporation:

The architects of 9/11 have been captured or killed. Al Qaeda's founder and titular leader is dead. Its remaining leadership has been decimated. The group's wanton slaughter of Muslims has alienated much of its potential constituency. Cooperation among security services and law enforcement organizations world-wide has made its operating environment more hostile. Al Qaeda has not been able to carry out a significant terrorist operation in the West since 2005, although, as demonstrated on the tenth anniversary of 9/11, it is still capable of mounting plausible, worrisome threats.⁵²

The general consensus is that in 2015, 9/11 can no longer be used as a justification for self-defense. However, as a threat from affiliate Islamic militant groups clearly persists, the legal position with respect to groups such as the Islamic State (IS) remains unclear. This is particularly true as regards the use of armed drones. As the *International Review of the Red Cross* observed:

Armed drones pose a major threat to the general prohibition on the inter-state use of force and to respect for human rights. On the battlefield, in a situation of armed conflict, the use of armed drones may be able to satisfy the fundamental international humanitarian law rules of distinction and proportionality. Away from the battlefield, the use of drone strikes will often amount to a violation of fundamental human rights. Greater clarity on the applicable legal regime along with restraints to prevent the further proliferation of drone technology are urgently needed.⁵³

What is also clearly much needed is greater transparency and accountability in order that an informed debate can take place in the public domain in relation to the legality of armed drone attacks. The subject of legality is related to ethics and morality which form the basis of legislation. The subject of ethics relating to drone attacks will be examined next.

Is it Ethical?

Advocates of drone warfare argue that the use of drones is ethical, especially when the alternative is the use of airstrikes – a blunt instrument which will result in greater collateral damage, as well as risking the lives of U.S. military personnel. Some go even further to argue that the United States is not only legally entitled to use drones, but is morally obliged to do so on the grounds of safety and accuracy. According to Bradley J. Strawser,⁵⁴ an assistant professor in the defense analysis department at the U.S. Naval Postgraduate School and a research associate with Oxford's Institute for Ethics, Law, and Armed Conflict:

... It's all upside. There's no downside. Both ethically and normatively, there's a tremendous value. You're not risking the pilot. The pilot is safe. And all the empirical evidence shows that drones tend to be more accurate. We need to shift the burden of the argument to the other side. Why not do this? The positive reasons are overwhelming at this point. This is the future of all air warfare. At least for the U.S.⁵⁵

Others do not share this view. For example, former President Jimmy Carter has expressed his unease with reference to the White House kill lists claiming that: "... the U.S. can no longer speak with moral authority on human rights."⁵⁶

Strawser's viewpoint may be correct to the extent of the safety of the drone pilot, but the subject of accuracy is disputed,⁵⁷ especially when dynamic targeting methods are adopted. However, as a starting point on the debate on ethics of drone strikes, the ethical argument can only be made if the correct targets have been identified and the killing has been carried out with minimal collateral damage.

Are the drones targeting the right people?

The previous section on legality has already highlighted a number of targeting legitimacy challenges, including locating and isolating the target, as well as establishing legitimacy in principle. A further problem relates to the assumptions made about the identity of the target. U.S. estimates of extremely low or no civilian casualties appear to be based on a narrowed definition of "civilian," and the presumption that, unless proven otherwise, individuals killed in strikes are militants. In May 2012, *The New York Times* reported that according to unnamed Obama adminis-

tration officials, the United States “. . . in effect counts all military-age males in a strike zone as combatants . . . unless there is explicit intelligence posthumously proving them innocent.”⁵⁸

As such, there is a strong likelihood that many casualties could be civilians incorrectly categorized as combatants, especially where information on the ground may be limited. Although collateral damage is often regarded as an unfortunate side effect of war, the ethical argument of the use of drones is that it minimizes the risk of civilian casualties. As such, the truth behind the level of collateral damage is of paramount importance when endorsing the use of drones from an ethical standpoint.

Collateral Damage.

Drone strikes are widely criticized for causing undue civilian casualties. A recent study estimates that of the overall number of those killed in drone strikes since 2004, 21 percent have been civilians, and only 6 percent during 2010,⁵⁹ although these numbers are highly disputed. One analysis based on open source data reported that attempts to kill 41 men resulted in the deaths of an estimated 1,147 people.⁶⁰

Collateral damage occurs when high value individuals (HVIs) are wrongly identified or located among noncombatants. The question of how many civilians are killed in drone strikes remains highly polarized.⁶¹ Recent UN reporting suggests that drone strikes have resulted in considerably more civilian deaths than U.S. officials have publicly acknowledged. According to UN Special Rapporteur Ben Emmerson, at least 400 civilians have been killed in Pakistan alone. In his interim report, Emmerson criticizes the United States

for creating “an almost insurmountable obstacle to transparency,” stating that:

The single greatest obstacle to an evaluation of the civilian impact of drone strikes is lack of transparency, which makes it extremely difficult to assess claims of precision targeting objectively.⁶²

As collateral damage minimization is a key justification for the lethal use of drones, information as to who has been killed and how many of those were intended targets is essential. Furthermore, this information needs to be publicly available if political buy-in is to be ensured not only within the United States but more widely. In addition, it should also be remembered that even where local populations escape death or injury directly through drone attacks, there are other negative security effects which need to be addressed.⁶³

Other Negative Effects on Local Populations.

One such example is retaliation from militant groups. In northern Pakistan, civilians have been caught in a dangerous position between local militant groups and U.S. drones. Militant groups, such as the Khorasan Mujahedin in Waziristan, pursue retaliatory attacks against local civilians they suspect of being U.S. informants. According to one report, tribal elders in North Waziristan say that most of the people killed by such militant attacks have never acted as informants, though they usually confess after beatings.⁶⁴ A further negative effect on victims is the psychological toll caused by drone attacks. Civilian deaths, injuries, displacement, and property loss caused by conflict are always traumatic for the population. Covert drone

strikes take a particular toll, striking unannounced and without any public understanding of who is, and importantly, who is not a target. For victims, there is no one to recognize, apologize for, or explain their sorrow; for communities living under the constant watch of surveillance drones, there is no one to hold accountable for their fear.⁶⁵ While the United States had a practice of offering amends in the form of recognition, explanations, and monetary payments to civilians suffering losses as a result of U.S. combat operations in Vietnam, Iraq, and Afghanistan, no such amends exist for civilians harmed by U.S. drones in Pakistan, Yemen, or Somalia.⁶⁶ Furthermore, when the Center for Civilians in Conflict conducted interviews of Pakistani drone victims in 2010, all the victims believed the Pakistani or U.S. Government owed them compensation for harm resulting from drones, although not one had received any form of assistance.⁶⁷ This has and will continue to foster anti-U.S. sentiment and other second-order effects, which will be discussed later.

*Perception of "Push Button Warfare" and
"PlayStation Mentality."*

A further ethical consideration relates to the perception of the psyche of the drone operator, who is typically based thousands of miles from the battlefield and undertakes operations entirely through computer screens and remote audio feed.⁶⁸ The operators/drone pilots face no risk of physical harm as a result of their geographical distance from the battlefield. Furthermore, media reporting has suggested that drone pilots are increasingly recruited by the military on the basis of their previous gaming skills,⁶⁹ hence the reason they reportedly are referred to colloquially as "cubicle war-

riors.”⁷⁰ One public concern is that such cubicle warriors are likely to develop a “PlayStation” mentality to killing.⁷¹ Such concerns are strongly denied by drone pilots. According to a former student at the U.S. Air Force 6th Reconnaissance Squadron, 2nd Lt. Zachary (last name withheld):

Flying RPAs is nothing like playing a video game. Anyone who thinks that couldn’t be more incorrect. We fly real aircraft and employ real weapons. There’s nothing fake about that.⁷²

Nevertheless, the terminology reportedly used deepens public concern. For example, the term “bug-splat” which is used to denote a successful attack,⁷³ has become official terminology used by U.S. authorities to refer to the individuals killed by a drone,⁷⁴ as the dead bodies resemble squashed bugs when rendered as pixels on a screen.⁷⁵ Another term, “squirter,” refers to a person observed to run for cover in fear of a drone attack.⁷⁶ Allegedly, in the words of one drone pilot: “It’s like a video game. It can get a little bloodthirsty. But it’s . . . cool.”⁷⁷

Whether accurate or not, it is reporting of this kind which shapes public perception of drone strikes both within the United States and abroad. It has been argued that comments such as this emphasize the dehumanization of targets, enemy or otherwise, in drone attacks, as operators view the targets as mere objects which are expendable.⁷⁸ Critics argue that the use of such terminology, coupled with the act of killing which is remote and technology based, result in further advancing moral disengagement of those with the power to make a life and death decision.⁷⁹ However, some argue the reverse, claiming that drone operators are acutely aware of the impact of their actions

as a result of technology which enables clear visual monitoring. In addition, it is argued that the high resolution images accentuate the realities on the ground, causing operators to suffer from Post-Traumatic Stress Disorder (PTSD).⁸⁰

. . . the carnage close-up, in real time—the blood and severed body parts, the arrival of emergency responders, the anguish of friends and family. Often he’s been watching the people he kills for a long time before pulling the trigger. Drone pilots become familiar with their victims. They see them in the ordinary rhythm of their lives—with their wives and friends, with their children. War by remote control turns out to be intimate and disturbing.⁸¹

As of March 2015, there were approximately 1,000 drone pilots against a demand of at least 1,700. Currently, drone pilots are required to attend a year-long training program at Holloman and Randolph Air Force bases in New Mexico and Texas, respectively, before they can fly operationally. Approximately 180 pilots graduate to become drone pilots a year. However, 240 trained pilots are leaving during the same period, raising concern as to how supply can keep up with demand.⁸² Although the U.S. Air Force has provided overwork and the perception of drone pilots as second rate compared to pilots of manned aircraft as reasons, PTSD is also reported to be a factor in the accelerating dropout rate of drone pilots.

It is also likely that the inappropriate language allegedly used is a coping mechanism on the part of the drone operators. Although this in itself does not justify the act of trivializing the deaths of individuals targeted by armed drones, consideration should be given that individuals who are exposed to extreme circum-

stances often use inappropriate humor⁸³ or language⁸⁴ as a defense or coping mechanism.⁸⁵ However, the U.S. military needs to raise awareness of the offense such language causes and counter the perception of trivialization, as well as provide adequate support to drone pilots who are traumatized by events on screen.

Is it Effective?

One of the arguments in favor of the use of drones is that they are effective mainly in terms of technical ability to strike intended targets. However, it is essential that the longer term impact of second and third order effects is considered fully, to ensure that they do not undermine the wider counterterrorism and COIN missions conducted by the United States. Three further key desired effects of targeted drone attacks have therefore been identified for discussion: accuracy, winning the fight, and cost.

Accuracy.

For the purpose of this discussion, accuracy should be taken to mean the ability to strike the right target while minimizing collateral damage. Precision targeting requires technological ability supported by good intelligence. There are two ways in which an individual target may be identified, located, and eliminated. The first is via a method known as HVI targeting, also known as personality targeting, where an individual whose identity is known is specifically targeted. According to one study, the process involves the development of target packets based on human intelligence (HUMINT) and signals intelligence (SIGINT) which are then submitted and reviewed by a joint military

board. If approved, the HVI is placed on an approved targeting list called the Joint Priority Effects List, after which concepts of operations (CONOPs) involving the HVI are developed. Once a CONOP has been approved by senior military officials, steps can be taken to remove the HVI from the battlefield.⁸⁶

The second method is signature strikes, where unknown individuals often in groups are targeted. As the precise identity of these individuals is unknown, the individuals targeted must match a pre-identified “signature” of behavior that the United States links to militant activity or association. In other words, signature strikes differ from personality strikes in that, with the former, the specific individual targeted is known; whereas with the latter, patterns of behavior are used to determine the target. For example, if an insurgent group is suspected or known to be operating in a certain area, criteria are determined to identify and detect suspicious activities. If the activities match those criteria, the target group is eliminated.

Signature strikes are the more controversial of the two methods, but make up a significant proportion of the covert drone campaign, constituting the majority of strikes in Pakistan. Indeed, according to one unnamed U.S. official, the United States has killed twice as many “wanted terrorists” in signature strikes than in personality strikes. U.S. officials have also reported that most of the people on the CIA’s kill list have been killed in signature strikes.⁸⁷ While signature strikes are clearly effective, the concern is that casting this wider net will result in other unwanted consequences, such as an increase in collateral damage.

Also, the criteria for determining suspicious behavioral patterns/signatures have come under criticism. For example, *The New York Times* quoted a

senior State Department Official as saying that “three guys doing jumping jacks” would be interpreted as a possible terrorist camp.⁸⁸ Where targeting is based on biological factors, such as males between the age of 20 and 40,⁸⁹ there will always be a concern as to how many of those individuals are, in fact, civilians and whether the lack of women in the group is sufficient to assume that they are a group of insurgents. Recent experience in Afghanistan and Iraq has highlighted that insurgents and terrorists often hide among civilian populations, with many disguising themselves as women.⁹⁰ Even with on the ground in-country intelligence, identifying the right target is challenging. The challenge becomes even more so when human intelligence is lacking, and decisions need to be made based on aerial intelligence alone.

In addition, a further differentiation should be made between pre-planned attacks and dynamic targeting. Pre-planned or “deliberate” drone operations are where attacks are conducted at a scheduled time and after elaborate processes of collateral damage estimation and other steps to reduce the risk of harming civilians have taken place. In contrast, “dynamic” targeting occurs when targeting decisions are made during a short window of time, on the basis of recently received or time-sensitive information. Due to the quick turnaround time from intelligence to strike, dynamic targeting may occur without the benefits of a full collateral damage estimation and mitigation process.⁹¹

It should also be noted that recent reporting has shown that unsurprisingly, one negative side effect of dynamic targeting is that the risk of collateral damage increases significantly. According to one study, most collateral damage in U.S. operations occurs when collateral damage mitigation is not observed – presum-

ably, primarily when operations are not pre-planned.⁹² Even when adopting the less controversial HVI targeting methods, there are assumptions about identity which may not be correct.

The issue of target identity raises problems on several levels. Whether targeting is derived from HUMINT or SIGINT, reliability of intelligence is an issue. Faulty intelligence has sometimes led to the wrong target being struck altogether. For example, on February 21, 2010, 23 Afghan civilians were wrongly identified by a U.S. operated drone as enemy combatants and killed in airstrikes. U.S. commanders were criticized for being less than forthcoming about reporting the civilian casualties until an official investigation was launched.⁹³ Such incidents, again unsurprisingly, create resentment within the indigenous populations toward the United States and local governments.⁹⁴

Furthermore, strikes can be carried out with no objective demonstration of target validity, often as a result of the challenging nature of oversight.⁹⁵ This and the adversary's demonstrated ability to replace its commanders create powerful arguments against the use of drone strikes. In fact, these types of second-order effects raise legitimate concerns about the contribution to the U.S. strategy of lethal targeting as an entire concept.

Winning the Fight.

Although there is evidence to suggest that lethal targeting may be effective in terms of disrupting the enemy in the short term, the medium- and longer-term impacts of the attacks are often not fully appreciated. Short-term successes such as the killing of an enemy commander can often be short-lived as these

individuals can be replaced.⁹⁶ Perhaps of more concern is that as the deaths of militants are glorified as they achieve martyr status; this, in turn, attracts new recruits to join the “cause,” further exacerbating the problem. According to Mohammed al-Ahmadi, a legal coordinator for a local human rights group: “The drones are killing al-Qaeda leaders, but they are also turning them into heroes.”⁹⁷

This is particularly prevalent in the social media dominated 21st century where potential sympathizers can be mobilized from all over the globe. Targeted killings by U.S. drones play into the hands of enemy propagandists justifying their war against the United States by arguing that the use of drone strikes is an injustice from which they need to defend themselves. In 2014, the Federal Bureau of Investigation and Department of Homeland Security distributed a bulletin to law enforcement officials warning that U.S. airstrikes (to include drone attacks) could provoke retaliatory attacks on U.S. soil by IS sympathizers. IS militants have already claimed that the execution of American journalist James Foley in August 2014 was in retaliation for U.S. airstrikes in Iraq.⁹⁸

These medium- and long-term second order effects caused by lethal targeting have often been neglected, although this is partly due to the lack of publicly available data. Too often, second order effects are cast aside as being beyond the control of friendly forces or those who conducted the strike, who are not in the location where the attacks are occurring. One reason given is that as the strikes occur in hard-to-reach places, this results in the difficulty in managing perceptions, especially over a period of time. However, this challenge does not justify taking action based on a lack of understanding.

When questioning the effectiveness of targeted killing, it is also necessary to make a distinction between counterterrorism and COIN, since they are two different policies and imply different strategies. This difference often means that what can be effective and useful as a counterterrorism tactic can be harmful from a counterinsurgency perspective. Although the two are blurred in reality, the latter traditionally involves an understanding of hearts and minds where Psychological Operations (PSYOPs) plays a key part. In other words, counterterrorism strategies, such as the elimination of a terrorist target, may prove to be counterproductive in a COIN scenario. Second order effects such as deep resentment caused among local populations for the killing of family members is a case in point.⁹⁹ With reference to U.S. drone strikes in Yemen, a lawyer in Yemen tweeted: "Dear Obama, when a US drone missile kills a child in Yemen, the father will go to war with you, guaranteed. Nothing to do with al-Qaeda."¹⁰⁰

Other Yemeni observers have also argued that U.S. drone strikes create or contribute to anti-U.S. opinions and violence in general.¹⁰¹ "If young men lose hope in our cause they will be looking for an alternative. And our hopeless young men are joining al-Qaeda."¹⁰² In May 2012, a study based on interviews with government officials, tribal elders, and others in Yemen carried out by the Center for Civilians in Conflict concluded that: ". . . an unintended consequence of the attacks has been a marked radicalization of the local population."¹⁰³

As David Kilcullen, former COIN adviser to General David Petraeus, and Andrew Exum a former U.S. Army officer in Iraq and Afghanistan then with the Center for a New American Security, noted:

Imagine, for example, that burglars move into a neighborhood. If the police were to start blowing up people's houses from the air, would this convince homeowners to rise up against the burglars? Wouldn't it be more likely to turn the whole population against the police? And if their neighbors wanted to turn the burglars in, how would they do that, exactly? Yet this is the same basic logic underlying the drone war.¹⁰⁴

As such, potential second-order effects must be considered in a complex irregular warfare environment where the differentiation between counterterrorism and COIN is often unclear. Armed drone strikes cannot be conducted or evaluated in isolation, which adds to the challenge of determining their overall effectiveness.

Cost.

Cost in the context of the use of armed drones can be measured in terms of both fiscal and political cost. In terms of the first, drones are an inexpensive option compared to other types of aircraft used in airstrikes which require a pilot to be on board. In terms of the aircraft itself, as configuration of the drone is not dictated by the human, it can be of any size. The lack of a pilot and passengers also negates the need for support systems such as pressurized cabins, further reducing cost.

Drones also satisfy the political dimension by reducing or eliminating the need for U.S. casualties. One desired result is to achieve the mission with minimal casualties, referring both to military personnel and to innocent civilians caught in the crossfire. Here, one advantage of "remote" warfare is that the lack of soldiers

on the ground results in the prevention of military casualties, which will be politically popular within the United States in that it can be seen to be saving U.S. lives. This may be particularly relevant when engaged in irregular warfare, a concept that is complex and one which the general public does not always fully understand or support.

An added practical operational benefit, which has both financial and political implications, is access. Ground operations, even small tactical strikes using Special Forces, are not only costly in monetary terms but extremely dangerous to troops. As drones are able to penetrate the most remote locations through their ability to fly for long hours without the need to refuel, as well as to access air space and terrain that would not be considered safe for a piloted aircraft to approach, this can be attractive from both a financial and political viewpoint. At first glance, the benefits are self-evident. However, remote warfare incurs other costs which also need to be considered. For example, the “cowardly” nature of drone warfare resulting from the lack of risk of physical harm to the drone pilots works against U.S. efforts to maintain a positive image.¹⁰⁵ Adversary groups such as ISIS have commented: “Don’t be cowards and attack us with drones. Instead, send your soldiers, the ones we humiliated in Iraq.”¹⁰⁶

Importantly, this perception is not limited to adversary organizations. David Kilcullen has also expressed his concern that “. . . using robots from the air . . . looks both cowardly and weak.”¹⁰⁷ Kilcullen’s comment is based purely on practical grounds, as he warned of the use of drone strikes backfiring with the potential to create more enemies than they eliminate. For example, in the tribal areas of Pakistan, where U.S.

drone strikes have significantly weakened al-Qaeda's capabilities, an unintended consequence of the attacks reported has been a marked radicalization of the local population.¹⁰⁸ The evidence of radicalization emerged in more than 20 interviews with tribal leaders, victims' relatives, human rights activists, and officials from four provinces in southern Yemen where U.S. strikes have targeted suspected militants. They described a strong shift in sentiment toward militants affiliated with the transnational network's most active wing, al-Qaeda in the Arabian Peninsula (AQAP).¹⁰⁹

Other critics, notably remote from the battlefield, describe the use of technology driven warfare over conventional face-to-face methods as not only "cowardly" but also unfair and dishonorable.¹¹⁰ Peter Singer of the New America Foundation has questioned whether drone warfare can even be described as war and raises concerns regarding accountability. Singer argues that a president who sends someone's son or daughter into battle has to justify it publicly, as does the congress responsible for appropriations and a declaration of war. But, if no one has children in danger, Singer questions whether drone warfare can be considered to be warfare at all.¹¹¹

This perception of drone pilots as "cowards" and second rate compared to their manned pilot counterparts is reported to be another factor affecting their retention.¹¹² Taking all these factors into account, the political benefits to the United States, namely that drone warfare negates the need to justify human losses to voters, are not straightforward, and require more careful consideration.

FUTURE USE OF DRONES FOR TARGETED KILLINGS

Despite the controversies surrounding drone warfare, in particular targeted killings by armed drones, demand for drone operations continues to increase in the United States. According to Air Force statistics, Predators and Reapers flew 369,913 flight hours in 2014, a figure six times higher than in 2006.¹¹³ Furthermore, the Pentagon is asking Congress for \$904 million in 2016 to buy 29 Reapers, more than double the number it sought in 2015.¹¹⁴

Speaking at a defense conference in Washington in March 2015, Deputy Secretary of Defense Robert O. Work confirmed that “Commanders’ appetite for drones remains very, very high and continues to outstrip our supply.”¹¹⁵ Furthermore, in a prepared statement in March 2015 to the House Armed Services Committee, General Lloyd Austin, the overall commander of U.S. forces in the Middle East and Afghanistan, also highlighted the reliance of the U.S. military on drones and the need to address shortages in supply, stating that drones, and in particular the video footage they provide “. . . had become fundamental to almost all battlefield maneuvers.”¹¹⁶ In addition to the continued demand for drones, technological advancements will inevitably lead to further development and increased proliferation of drone technology, in the absence of direct intervention to prevent such development. There is currently no indication that such intervention can be expected in the near future.

However, there are two areas of concerns in relation to future drones. The first relates to the development of Nano drones and the second, autonomous drones. Nano drones the size of insects could be used

for targeted killings using poison or other methods which do not require a large payload.¹¹⁷ A prototype “hummingbird drone,” capable of flying at 11 miles per hour and perching on a windowsill, was unveiled in February 2011.¹¹⁸ In the same year, media reporting warned of fully autonomous drones, capable of identifying and eliminating a target without direct human intervention, which were being prepared for deployments by the United States.¹¹⁹ Some have expressed concern that such autonomous drones potentially represent “. . . the greatest challenge for *jus in bello* since the development of chemical warfare.”¹²⁰

Proposals for autonomous UAVs in general are fraught with ethical dilemmas. At present, the technology is insufficiently developed to be operationalized. However, it is likely that sometime in the future autonomous UAVs will become a reality as advancements in facial recognition technologies reach the stage where target recognition without human intervention becomes possible. It is essential that the ethical implications of the use of such technologies are debated in full and resolved, including issues surrounding accountability. For example, if an autonomous drone were to target a school bus instead of a tank, systems must be in place to ensure that responsibility will not simply be devolved and blame placed exclusively on systems failures and technology.

CONCLUSION

Drones make warfare cheaper and easier, as well as more efficient, by transcending human limitations. Furthermore, a drone is dispensable and incurs much less political cost when shot down or “killed” than a conventional aircraft with pilot. But the use of drones

for targeted killings has generated significant controversy. While supporters claim that drone warfare is not only legal but ethical and wise, others have suggested that drones are prohibited weapons under IHL because they cause, or have the effect of causing indiscriminate killings of civilians, such as those in the vicinity of a targeted person.¹²¹ Questions have also been raised over the methods used for locating and eliminating targets. The use of signature strikes in particular has been criticized for being unable to distinguish sufficiently between a legitimate target and an innocent civilian, as methods used only take into consideration basic biological factors such as age and gender in identifying a potential militant.

Leaving aside technical aspects of accurate targeting, there is doubt as to the medium and longer term overall effectiveness of conducting drone missions, because they cause resentment among local populations and give fuel to the enemy cause. In particular, they provide the enemy with freshly-converted supporters who previously might have been undecided, neutral or even positively disposed toward the United States.

This anti-American sentiment is not necessarily confined to the victims of drone attacks in countries affected by the strikes. Following the attacks of 9/11, cooperation between the United States and its allies on counterterrorism has increased substantially. This cooperation appeared based on shared objectives and values. For example, in 2004, the European Union (EU) and the United States adopted a Declaration on Combating Terrorism that spelled out the objectives of their counterterrorism cooperation. The declaration stated that U.S.-EU counterterrorism cooperation would be in keeping with human rights and the rule

of law. Since then, however, the United States has expanded its counterterrorism tactics beyond what many in the EU would consider the limits of international law.¹²²

The use of armed drones is now added to a list of controversial U.S. counterterrorism tactics such as the maintenance of the detention center in Guantanamo Bay, Cuba, where suspected terrorists have been held on an often dubious legal basis; the use of interrogation systems bordering torture, such as waterboarding; and extraordinary renditions, whereby terrorist suspects abducted in third countries were then transferred to states where a lax legal system and oversight providing no guarantee against torture or inhuman treatment could be exploited.¹²³ The benefit of these tactics must be weighed against the reputation of the United States among its allies, as well as the key question of the extent to which they are having a positive impact in countering terrorism, or whether they are, in fact, doing more to fuel terrorism.

There are no easy answers. Given the enormously complex and multidimensional nature of terrorism, any action to counter it must be considered with extreme caution, since action taken to address one aspect of the problem in isolation may reveal or create additional problems. As for drones, while further advancement in relevant technologies is inevitable, it must also be recognized that technology in general is advancing at a pace that outstrips the political, legal and ethical frameworks upon which coexistence and cooperation with global partners is built.

In tackling the threat of global terrorism, it is often too easy for practitioners to become focused on their specific problem set to the point where the wider consequences of their action are forgotten or put aside. This

is dangerous, as such second order effects may undo well-intentioned actions and exacerbate the original problem. Targeting methods such as signature strikes are a case in point, where casting a wider net to eliminate a terrorist or a group of terrorists may result in significant collateral damage and be detrimental to the wider mission. It must be remembered that methods used by terrorists include sacrificing “parts” for the benefit of the “whole.” The U.S. administration must be careful to ensure that it cannot be accused of doing the same.

RECOMMENDATIONS

Recommendations include the following:

1. **Investigate.** Conduct a review of civilian casualties both in and out of declared theaters of armed conflict. The review should contain information on the number of civilian deaths and injuries, specifying whether the victim was male or female, adult or child. In addition, the larger impact on civilian communities, including destruction of homes and displacement, and retaliatory violence by local groups must be included as part of the analysis.

2. **Transparency.** The outcome of the fact-finding investigations should be made public, except where operational considerations preclude this. In such situations, the government should at a minimum explain its decision.

3. **Consequence Management.** Best practices and lessons from Afghanistan regarding civilian casualty consequence management should be applied to other U.S. Government efforts, including operations outside declared theaters of armed conflict.

4. **Targeting (Intelligence).** Conduct a review to determine the adequacy of standards for the identification of targets, including the reliability of “signatures,” and the sufficiency of intelligence sources and analysis especially where there is limited U.S. ground presence.

5. **Targeting (Classification).** Review the process for classifying casualties as enemy combatants versus civilians in operations outside declared theaters of armed conflict.

6. **Pilots.** Continue to verify the validity and relevance of drone pilot education in the legal and ethical dimension of armed attacks. Ensure continued provision of psychological support to personnel where necessary.

7. **Perception Management.** In addition to creating transparency, ensure that the message (namely why, what, and how) is effectively communicated both domestically and abroad, to illustrate that U.S. armed drone strikes are indeed legal, ethical, and accurate.

ENDNOTES

1. *The Security Impact of Drones: Challenges and Opportunities for the UK*, Birmingham Policy Commission Report, Birmingham, UK, October 2014.

2. “US Unmanned Systems Integrated Roadmap (Fiscal Years 2009–2034),” Washington, DC: U.S. Department of Defense, 2009, p. 2, available from www.acq.osd.mil/sts/docs/UMSIntegratedRoadmap2009.pdf, accessed December 17, 2014.

3. Alain De Neve, “Armed drones: What technical revolution? What political and ethical implications?” Brussels, Belgium: Centre for Security and Defence Studies of the Royal Higher Institute for Defence, October 22, 2013, available from www.irsd.be/website/images/livres/enotes/en/eNote11EN.pdf, accessed December 18, 2014.

4. Peter Bergen and Katherine Tiedemann, "Hidden war, there were more drone strikes—and far fewer civilians killed," Washington, DC: New America Foundation, December 22, 2010, available from newamerica.net/node/41927, accessed January 2, 2015.

5. W. J. Hennigan, "New drone has no pilot anywhere, so who's accountable?" *Los Angeles Times*, January 26, 2012, available from www.latimes.com/business/la-fi-auto-drone-20120126,0,740306.story, accessed December 20, 2014.

6. Afsheen John Radsan, "Loftier standards for the CIA's remote-control killing," Statement for the House Subcommittee on National Security & Foreign Affairs, in Legal Studies Research Paper Series, Accepted Paper No. 2010-11, St Paul, MN: William Mitchell College of Law, May 2010, available from papers.ssrn.com/sol3/papers.cfm?abstract_id=1604745, accessed December 20, 2014.

7. Birmingham Policy Commission Report, p. 15.

8. Based on the design for the ubiquitous DH82 Tiger Moth trainer, the Queen Bee first flew in 1935. It was capable of flying at 17,000 feet, and had a range of 300 miles at over 100 mph. A total of 380 Queen Bees served as target drones in the Royal Air Force and the Royal Navy until they were retired in 1947.

9. House of Commons Defence Committee, "Remote Control: Remotely Piloted Air Systems—Current and Future UK use—Tenth Report of Session 2013-14," Vol. 1, London, UK: The Stationery Office Limited, 2014, p. 11.

10. Birmingham Policy Commission Report.

11. "Drone Journalism and the Law," Chapel Hill, NC: UNC Centre for Media Law and Policy, available from <https://medialaw.unc.edu/resources/drone-journalism/>, accessed May 14, 2015. See also Jennifer O'Mahony, "The brave new world of 'drone journalism'," *The Telegraph*, June 13, 2013, available from www.telegraph.co.uk/technology/news/10129485/The-brave-new-world-of-drone-journalism.html, accessed May 14, 2015.

12. "Northern Ireland police to use drones at G8 summit: Police force want to buy two remote-controlled aircraft to assist with security at this summer's economic summit," *The Guardian*, March 15, 2013, available from www.theguardian.com/uk/2013/mar/15/northern-ireland-drones-g8-summit, accessed January 10, 2015.

13. "German railways to test anti-graffiti drones," BBC News, May 27, 2013, available from www.bbc.co.uk/news/world-europe-22678580, accessed January 10, 2015.

14. "Yo! Sushi: The world's first flying waiter—the 'iTray'," June 12, 2013, available from <https://www.youtube.com/watch?v=y9RKXO1rr7g> and metro.co.uk/2013/06/11/video-worlds-first-flying-tray-at-sushi-restaurant-yo-sushi-3836390/, accessed January 10, 2015.

15. "Take Off For Sushi Restaurant's Flying Tray," Sky News, June 10, 2013, available from news.sky.com/story/1101379/take-off-for-sushi-restaurants-flying-tray, accessed January 10, 2015.

16. "Saving the rhino with surveillance drones," *The Guardian*, December 25, 2012, available from www.theguardian.com/environment/2012/dec/25/saving-the-rhino-with-surveillance-drones, accessed January 10, 2015.

17. Winnie Agbonlahor, "The Secret Life of Drones," *Civil Service World*, July 5, 2013.

18. Harold Hongju Koh, legal adviser of U.S. Department of State, *The Obama Administration and International Law*, speech at the annual meeting of the American Society of International Law, Washington, DC, March 25, 2010, available from www.state.gov/s/l/releases/remarks/139119.htm, accessed January 11, 2015.

19. United Nations General Assembly, Sixty-eighth Session, Report of the Special Rapporteur on Extrajudicial, Summary, or Arbitrary Executions, "Protecting People: the right to life," A/68/382, September 13, 2014, Sec. Para. 30.

20. Rory Carroll, "The Philosopher Making the Moral Case for US Drones," *The Guardian*, available from www.theguardian.com/world/2012/aug/02/philosopher-moral-case-drones, accessed December 20, 2014.

21. New York City Bar, "The Legality under International Law of Targeted Killings by Drones Launched by the United States," Committee on International Law, June 2014.

22. *Geneva Convention III*, Art. 2.

23. Paul Rogers, "America's military: failures of success," *Open Democracy*, May 12, 2011.

24. Eric Schmitt and Thom Shanker, *Counterstrike: The Untold Story of America's Campaign Against al-Qaeda*, New York: Times Books, 2011, p. 245.

25. International Committee of the Red Cross Website, available from <https://www.icrc.org/en/war-and-law/ihl-other-legal-regimes/jus-in-bello-jus-ad-bellum>, accessed December 20, 2014.

26. International Committee of the Red Cross, "International Humanitarian Law: Answers to your Questions," October 2002, available from www.redcross.org/images/MEDIA_CustomProductCatalog/m22303661_IHL-FAQ.pdf, accessed May 14, 2015.

27. Jasmine Moussa, "Can 'jus ad bellum' override 'jus in bello'? Reaffirming the separation of the two bodies of law," *International Review of the Red Cross*, Article No. 852, December 31, 2008.

28. Francois Bugnion, "Guerre juste, guerre d'aggression et droit international humanitaire" ("Just war, war of aggression, and international humanitarian law"), *International Review of the Red Cross*, Vol. 84, 2002, p. 528.

29. Moussa.

30. *Ibid.*

31. S. Casey-Maslen "Pandora's box? Drone strikes under jus ad bellum, jus in bello, and international human rights law," *International Review of the Red Cross*, Vol. 94, No. 886, Summer 2012, p. 597.

32. Jane Mayer, "The Predator War: What are the risks of the C.I.A.'s covert drone program?" *The New Yorker*, October 26,

2009, available from www.newyorker.com/magazine/2009/10/26/the-predator-war, accessed May 5, 2015.

33. Avery Plaw, *Targeting Terrorists: A License to Kill?* Aldershot, UK, and Burlington, US: Ashgate Publishing, 2008; Jens David Ohlin, *Is Jus in Bello in Crisis?* No. 3, Ithaca, NY: Cornell Law Faculty Publications, 2013, available from scholarship.law.cornell.edu/cgi/viewcontent.cgi?article=2475&context=facpub, accessed April 23, 2015.

34. If the attack that killed al-Libi was part of an armed conflict, the lawfulness of the attack depends on its compliance with the rules of IHL. What al-Libi was doing at the time he was killed (and who was with him) would be relevant in assessing whether the attack was proportionate, and whether the second strike complied with the prohibition of targeting civilians not directly participating in hostilities who are involved in rescuing the wounded and the prohibition of targeting the wounded themselves.

35. Non-International Armed Conflict. In situations of NIAC, the relevant bodies of law that come into play are LoAC/IHL, international human rights law (IHRL) and each State's domestic law. See "Procedural Safeguards for Security Detention in Non-International Armed Conflict," London, UK: Chatham House & ICRC, September 22-23, 2008, available from https://www.chatham-house.org/sites/files/chathamhouse/field/field_document/Meeting%20Summary%20Procedural%20Safeguards%20for%20Security%20Detention%20in%20Non-International%20Armed%20Conflict.pdf.

36. Benjamin Wittes, "Amnesty International Responds," *Lawfare*, October 25, 2013, available from www.lawfareblog.com/2013/10/amnesty-international-responds/, accessed January 20, 2015.

37. See section, in this monograph, that follows on efficacy entitled, "Is it Effective?" for methods used for targeting.

38. Assassinations generally refer to the elimination of political officials, and were banned in the United States in 1981. In 1975, the U.S. Senate Select Committee chaired by Senator Frank Church (the Church Committee) reported on several CIA assassinations, including efforts to assassinate Fidel Castro. Criticism in this report resulted in a proposal banning assassinations. This was

later incorporated into Executive Order 12333 signed by President Ronald Reagan in 1981, which is still in effect today. Executive Order 12333 is available at <https://www.cia.gov/about-cia/eo12333.html>.

39. Whitley R. P. Kaufman, "Rethinking the ban on assassination: just war principles in the age of terror," In Michael Brough, John Lango and Harry van der Linden, eds., *Rethinking the Just War Tradition*, New York: State university of New York, 2007, pp. 171-182.

40. Yael Stein, "By any name illegal and immoral," *Ethics & International Affairs*, Vol. 17, No. 1, 2003, pp. 127-136.

41. Greg Miller and Bob Woodward, "Secret memos reveal explicit nature of U.S., Pakistan agreement on drones," *The Washington Post*, October 24, 2013, available from www.washingtonpost.com/world/national-security/top-pakistani-leaders-secretly-backed-cia-drone-campaign-secret-documents-show/2013/10/23/15e6b0d8-3beb-11e3-b6a9-da62c264f40e_story.html, accessed May 5, 2015.

42. Asif Shahzad and Steven R. Hurst, "Pakistan's Drone Strike Victims Accuse U.S. Of Double Standard," *Huffington Post*, May 1, 2015, available from www.huffingtonpost.com/2015/05/01/pakistan-drone-strike-double-standard_n_7188644.html?utm_hp_ref=politics&ir=Politics, accessed May 3, 2015. See also William Helbling, "Pakistan top court denies petition challenging US drone strikes," *The Jurist*, April 13, 2015, available from jurist.org/paperchase/2015/04/pakistan-top-court-denies-petition-challenging-us-drone-strikes.php, accessed May 3, 2015.

43. John Brennan, Assistant to the President for Homeland Security and Counterterrorism, "The Ethics and Efficacy of the President's Counterterrorism Strategy," speech, Wilson Center, Washington, DC, April 30, 2012, available from www.wilsoncenter.org/event/the-ethics-and-ethics-us-counterterrorism-strategy.

44. New York City Bar, "The Legality under International Law of Targeted Killings by Drones launched by the United States," New York City, June 2014, p. 3.

45. See Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, 41, July 8.

46. The Geneva Convention 1949, Additional Protocol I, Art. 51, 5(b).

47. Helen Duffy, *The "War on Terror" and the Framework of International Law*, Cambridge, UK: Cambridge University Press, 2005, pp. 18-19, 231-235.

48. Noam Neuman, "Applying the Rule of Proportionality: Force Protection and Cumulative Assessment in International Law and Morality," 7 *Y.B. International Humanitarian Law*, 2004, pp. 79, 81, 98-99.

49. In *Prosecutor v. Galić*, the Trial Chamber observed that proportionality should be considered under the lens of "whether a reasonably well-informed person in the circumstances of the actual perpetrator, making reasonable use of the information available to him or her, could have expected excessive civilian casualties to result from the attack," *Prosecutor v. Galić*, Case No. IT-98-29-T, Judgement and Opinion, 58, ICTY, December 5, 2003.

50. "The Legality under International Law of Targeted Killings by Drones Launched by the United States," p. 170.

51. *Ibid.*

52. Testimony of Brian Michael Jenkins of RAND Corporation, *Al Qaeda After Bin Laden: Hearing Before the House Armed Services Committee, Subcommittee on Emerging Threats and Capabilities*, 112th Cong., 2011.

53. Casey-Maslen, p. 597.

54. Bradley Strawser is the author of *Killing by Remote Control: The Ethics of an Unmanned Military*.

55. Bradley J. Strawser in Rory Carroll, "The philosopher making the moral case for US drones," *The Guardian*, August 2, 2012, available from www.theguardian.com/world/2012/aug/02/philosopher-moral-case-drones, accessed April 23, 2015.

56. *Ibid.*

57. See section, in this monograph, that follows, "Is it Effective?" with respect to the accuracy of drone strikes.

58. Jo Becker and Scott Shane, "Secret 'Kill List' Proves a Test of Obama's Principles and Will," *The New York Times*, May 29, 2012.

59. Peter Bergen and Katherine Tiedemann, *The Year of the Drone*, Washington, DC: New America Foundation, available from foreignpolicy.com/2010/04/23/the-year-of-the-drone/, accessed December 14, 2014.

60. Spencer Ackerman, "41 men targeted but 1,147 people killed: US drone strikes—the facts on the ground," *The Guardian*, November 24, 2014, available from www.theguardian.com/us-news/2014/nov/24/sp-us-drone-strikes-kill-1147, accessed April 23, 2015.

61. Chris Woods, "Analysis: CNN expert's civilian drone death numbers don't add up," London, UK: Bureau of Investigative Journalism, July 17, 2012, available from www.thebureauinvestigates.com/2012/07/17/analysis-cnn-experts-civilian-drone-death-numbers-dont-add-up/, accessed December 15, 2014.

62. UN General Assembly, Report of the Special Rapporteur on the promotion and protection of human rights and fundamental freedoms while countering terrorism, September 18, 2013. p. 11, available from msnbcmedia.msn.com/i/msnbc/sections/news/UN_Drones_Report.pdf, accessed January 12, 2015.

63. "The Civilian Impact of Drones: Unexamined Costs, Unanswered Questions," New York: Columbia Law School, Center for Civilians in Conflict, p. 21.

64. Alex Rodriguez, "Pakistani Death Squads Go after Informants to US Drone Program," *The Los Angeles Times*, December 28, 2011; Jane Mayer, "The Predator War: What are the risks of the C.I.A.'s covert drone program?" *The New Yorker*, October 26, 2009.

65. "The Civilian Impact of Drones," p. 24.

66. *Ibid.*, p. 26.

67. *Ibid.*

68. "UN official criticises US over drone attacks," BBC News, June 2, 2010, available from www.bbc.co.uk/news/10219962, accessed May 14, 2015.

69. "War Games: Documentary shows how U.S. recruited gamers to fly drones into Pakistan," *New York Times Tribune*, February 2, 2015, available from tribune.com.pk/story/831710/war-games-documentary-shows-how-us-recruited-gamers-to-fly-drones-into-pakistan/, accessed May 3, 2015.

70. Tonje Schei, Lars Løge, Jonathan Lie, Charlie Phillips, Noah Payne-Frank, and Jacqui Timberlake, "Drone wars: the gamers recruited to kill" – video, *The Guardian Documentary*, available from www.theguardian.com/news/video/2015/feb/02/drone-wars-gamers-recruited-kill-pakistan-video, accessed May 3, 2015; Dan Pearson, "War Games: the link between gaming and military recruitment," *Gamesindustry.biz*, February 2, 2015, available from www.gameindustry.biz/articles/2015-02-02-the-military-recruitment-of-gamers, accessed May 3, 2015.

71. "UN official criticises US over drone attacks."

72. Second-Lieutenant Logan Clark, 49th Wing Public Affairs, "18X pilots learn RPAs first," U.S. Air Force, Holloman Air Force Base Website, September 2, 2012, available from www.holloman.af.mil/news/story.asp?id=123289389, accessed May 17, 2015.

73. Sophia Saifi, "Not a 'bug splat': Artists give drone victims a face in Pakistan," CNN News, April 9, 2014, available from edition.cnn.com/2014/04/09/world/asia/pakistan-drones-not-a-bug-splat/, accessed May 14, 2015. See also Leo Benedictus, "The artists who are giving a human face to the US's 'bug splat' drone strikes," *The Guardian*, April 7, 2014, available from www.theguardian.com/world/shortcuts/2014/apr/07/artists-give-human-face-drones-bug-splat-pakistan, accessed May 14, 2015.

74. Rob Williams, "Giant 'Not A Bug Splat' art installation takes aim at Pakistan's predator drone operators," *The Independ-*

ent, April 8, 2014, available from www.independent.co.uk/news/world/asia/giant-not-a-bug-splat-art-installation-takes-aim-at-pakistan-predator-drone-operators-9246768.html, accessed May 30, 2015.

75. E. Robinson, "Assassination by robot: Are we justified?" *The Washington Post*, 2011, available from www.washingtonpost.com/opinions/assassination-byrobot-are-we-justified/2011/06/30/AGp-0DIsH_story.html, accessed November 3, 2014.

76. J. Mayer, "The Predator War—What are the risks of the CIA's covert drone program?" *The New Yorker*, 2009.

77. P. W. Singer, *Wired for War: The Robotics Revolution and Conflict in the 21st Century*, London, UK: Penguin, 2010a, pp. 308-309.

78. Sikander Ahmed Shah, *International Law and Drone Strikes in Pakistan: The Legal and Socio-political Aspects*, London, UK: Routledge, November 2014, p. 209.

79. Ann Rogers, "Investigating the Relationship Between Drone Warfare and Civilian Casualties in Gaza," *Journal of Strategic Security*, Vol. 7, No. 4, 2014, pp. 94-107, available from scholarcommons.usf.edu/jss/vol7/iss4/8, accessed May 14, 2015. See also Tyler Wall and Torin Monahan, "Surveillance and violence from afar: The politics of drones and liminal security-scapes," *Theoretical Criminology*, August 15, 2011, pp. 239-254, available from tcr.sagepub.com/content/15/3/239.abstract, accessed May 14, 2015.

80. Statement of Rosa Brooks, "The Constitutional and Counterterrorism Implications of Targeted Killings," Hearing Before the Senate Judiciary Subcommittee on the Constitution, Civil Rights, and Human Rights, 113th Cong., 2013.

81. Mark Bowden, "The Killing Machines," *The Atlantic*, August 14, 2013, available from www.theatlantic.com/magazine/print/2013/09/the-killing-machines-how-to-think-about-drones/309434/, accessed January 23, 2015.

82. Pratap Chatterjee, "American Drone Operators Are Quitting in Record Numbers," *The Nation*, March 5, 2015, available from www.thenation.com/article/200337/american-drone-operators-are-quitting-record-numbers, accessed May 17, 2015.

83. Jon Kelly, "Why do people tell sick jokes about tragedies?" BBC News, March 18, 2011, available from www.bbc.co.uk/news/magazine-12775389, accessed May 29, 2015.

84. P. R. McCrae, "Situational determinants of coping responses: Loss, threat and challenge," *Journal of Personality and Social Psychology*, Vol. 46, 1984, pp. 919-928.

85. Raija-Leena Punamäki, Katri Kanninen, Samir Qouta, and Eyad, "The role of psychological defences in moderating between trauma and post-traumatic symptoms among Palestinian men," *International Journal of Psychology*, Vol. 37, Issue 5, 2002, pp. 289-296.

86. Luke A. Olnet, "Lethal Targeting Abroad: Exploring long-term effectiveness of armed drone strikes in overseas contingency operations," Georgetown University MA Thesis, Washington, DC, March 11, 2015.

87. Greg Miller, "C.I.A. Seeks New Authority to Expand Yemen Drone Campaign," *The Washington Post*, April 18, 2012.

88. Adrianna Huffington, "'Signature strikes' and the President's Empty Rhetoric on Drones," *Huffington Post*, July 10, 2013, available from www.huffingtonpost.com/arianna-huffington/signature-strikes-and-the_b_3575351.html, accessed May 30, 2015. See also Jo Becker and Scott Shane, "Secret 'Kill List' Proves a Test of Obama's Principles and Will," *The New York Times*, May 29, 2012, available from www.nytimes.com/2012/05/29/world/obamas-leadership-in-war-on-al-qaeda.html?pagewanted=all, accessed May 31, 2015.

89. Tara McKelvey, "A Former Ambassador to Pakistan Speaks Out," *The Daily Beast*, November 20, 2012, available from www.thedailybeast.com/articles/2012/11/20/a-former-ambassador-to-pakistan-speaks-out.html, accessed May 31, 2015.

90. "Afghan-Led Force Captures Taliban Commander, Suspected Insurgents Dressed as Women," ISAF Joint Command—Afghanistan, 2010-07-CA-195, available from www.rs.nato.int/article/isaf-releases/afghan-led-force-captures-taliban-commander-suspected-insurgents-dressed-as-women.html, accessed June 1, 2015.

91. "The Civilian Impact of Drones," p. 11.
92. Gregory S. McNeal, "US Practice of Collateral Damage Estimation and Mitigation," Social Science Research Network, November 9, 2011, available from papers.ssrn.com/sol3/papers.cfm?abstract_id=1819583, accessed February 20, 2015.
93. Robert H. Reid, "Officers reprimanded in fatal drone strike," *Army Times*, May 29, 2010, online edition, available from www.armytimes.com/news/2010/05/ap_afghanistan_airforce_drone_052910/, accessed November 7, 2014.
94. George C. Wilson, "The True Cost of Assassinations," *Congress Daily*, September 13, 2010.
95. Micah Zenko, "Reforming U.S. Drone Strike Policies," Council Special Report No. 65, New York: Council on Foreign Relations, Center for Preventive Action, January 2013.
96. "The Civilian Impact of Drones," p. 23.
97. Theodore Karasik, "The Drone Doctrine in Yemen—Understanding the Whole Picture," *Arabian Aerospace*, July 24, 2012.
98. Catherine Herridge, "FBI, DHS bulletin warns of retaliation for airstrikes against ISIS," Fox News, August 26, 2014, available from www.foxnews.com/politics/2014/08/26/fbi-dhs-bulletin-warns-retaliation-for-airstrikes-against-isis/, accessed April 23, 2015.
99. "The Civilian Impact of Drones," p. 23.
100. Haykal Bafana, Twitter post, May 11, 2012, available from <https://twitter.com/BaFana3/statuses/200930818816880640>; Mothana, "How Drones Help Al Qaeda," *The New York Times*, June 13, 2012.
101. "The Civilian Impact of Drones," p. 23.
102. Ghaith Abdul-Ahad, "Yemenis Choose Jihad over Iranian Support," *The Guardian*, May 10, 2012; Micah Zenko, "Escalating America's Third War in Yemen," Washington, DC: Council on Foreign Relations, May 14, 2012.

103. Sudarsan Raghavan, "In Yemen, US Airstrikes Breed Anger, and Sympathy for Al Qaeda," *The Washington Post*, May 29, 2012. See also commentary in "The Civilian Impact of Drones," p. 23.

104. David Kilcullen and Andrew McDonald Exum, "Death from Above, Outrage Down Below," *The New York Times*, May 16, 2009; Noah Shachtman, "Call Off Drone War, Influential US Adviser Says," *Wired*, February 10, 2009 Civilian Conflict Report, p. 23.

105. George Monbiot, "With its deadly drones, the US is fighting a coward's war," *The Guardian*, January 30, 2012, available from www.theguardian.com/commentisfree/2012/jan/30/deadly-drones-us-cowards-war, accessed May 14, 2015.

106. Andres Johnson, "ISIS to U.S.: 'Don't be Cowards and Attack us With Drones. Send your Soldiers,'" *National Review*, August 8, 2014, available from www.nationalreview.com/corner/384981/isis-us-dont-be-cowards-and-attack-us-drones-send-your-soldiers-andrew-johnson, accessed May 17, 2015.

107. Doyle McManus, "U.S. drone attacks in Pakistan 'back-firing,' Congress told," *The Los Angeles Times*, May 3, 2009, available from articles.latimes.com/2009/may/03/opinion/oe-mcmanus3, accessed May 17, 2015.

108. Sudarsan Raghavan, "In Yemen, U.S. airstrikes breed anger, and sympathy for al-Qaeda," *The Washington Post*, May 29, 2012, available from www.washingtonpost.com/world/middle-east/in-yemen-us-airstrikes-breed-anger-and-sympathy-for-al-qaeda/2012/05/29/gJQAUmKI0U_story.html, accessed May 17, 2015.

109. *Ibid.*

110. Steven John Thompson, "Global Issues and Ethical Considerations in Human Enhancement Technologies," *IGI Global*, 2014, Hershey, PA, p. 147.

111. "Robots at War: Drones and Democracy," *The Economist*, October 1, 2015, available from www.economist.com/blogs/babbage/2010/10/robots_war, accessed May 17, 2015.

112. Pratap Chatterjee, "American Drone Operators Are Quitting in Record Numbers," *The Nation*, March 5, 2015, available from www.thenation.com/article/200337/american-drone-operators-are-quitting-record-numbers, accessed May 17, 2015.

113. Craig Whitlock, "How crashing drones are exposing secrets about U.S. Operations," *Washington Post*, March 25, 2015, available from www.washingtonpost.com/world/national-security/how-crashing-drones-are-exposing-secrets-about-us-war-operations/2015/03/24/e89ed940-d197-11e4-8fce-3941fc548f1c_story.html?utm_source=Sailthru&utm_medium=email&utm_term=%2ASituation%20Report&utm_campaign=Sit%20Rep%20March%2026%202015, accessed April 8, 2015.

114. *Ibid.*

115. *Ibid.*

116. *Ibid.*

117. Nils Melzer, "Targeted Killings in International Law," *Oxford Monographs in International Law*, Oxford, UK: Oxford University Press, 2008, pp. 3–4.

118. Elisabeth Bumiller and Thom Shanker, "War evolves with drones, some tiny as bugs," *The New York Times*, June 19, 2011, available from www.nytimes.com/2011/06/20/world/20drones.html?pagewanted=1&_r=1&ref=unmannedaerialvehicles.

119. W. J. Hennigan, "New drone has no pilot anywhere, so who's accountable?" *The Los Angeles Times*, January 26, 2012, available from www.latimes.com/business/la-fi-auto-drone-20120126,0,740306.story, accessed January 14, 2015.

120. Emma Slater, "UK to spend half a billion on lethal drones by 2015," *The Bureau of Investigative Journalism*, November 21, 2011, available from <https://www.thebureauinvestigates.com/2011/11/21/britains-growing-fleet-of-deadly-drones/>, accessed December 29, 2014.

121. Philip Alston, *Study on Targeted Killings* (A/HRC/14/24/Add.6), Report of the Special Rapporteur on Extrajudicial, Sum-

mary, or Arbitrary Executions to the UN Human Rights Council, May 28, 2010, p. 24, available from www2.ohchr.org/english/bodies/hrcouncil/docs/14session/A.HRC.14.24.Add6.pdf, accessed April 23, 2015.

122. Nathalie Van Raemdonck, "Vested Interest or Moral Indecisiveness? Explaining the EU's Silence on the US Targeted Killing Policy in Pakistan," Istituto Affari Internazionali Working Papers 12-05, Rome, Italy: Istituto Affari Internazionali, March 2012, p. 2.

123. *Ibid.*

U.S. ARMY WAR COLLEGE

**Major General William E. Rapp
Commandant**

**STRATEGIC STUDIES INSTITUTE
and
U.S. ARMY WAR COLLEGE PRESS**

**Director
Professor Douglas C. Lovelace, Jr.**

**Director of Research
Dr. Steven K. Metz**

**Author
Dr. Shima D. Keene**

**Editor for Production
Dr. James G. Pierce**

**Publications Assistant
Ms. Rita A. Rummel**

**Composition
Mrs. Jennifer E. Nevil**



U.S. ARMY

THE
UNITED STATES
ARMY WAR COLLEGE



STRENGTH *and* WISDOM

FOR THIS AND OTHER PUBLICATIONS, VISIT US AT
<http://www.carlisle.army.mil/>

ISBN 1-58487-713-8



9 781584 877134

9 0000 >



This Publication



SSI Website



USAWC Website